

# Nikolay K Kharchev

## List of Publications by Year in descending order

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104  
papers

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104  
docs citations

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times ranked

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#	ARTICLE	IF	CITATIONS
1	Changes in Structure of Subthreshold Discharge in Air Occurring with Decreasing Microwave Radiation Intensity. Plasma Physics Reports, 2022, 48, 170-177.	0.3	0
2	Electric Currents Induced upon Creation and Heating of Plasma by Means of Electron Cyclotron Resonance in L-2M Stellarator. Plasma Physics Reports, 2022, 48, 183-192.	0.3	2
3	2D distributions of potential and density mean-values and oscillations in the ECRH and NBI plasmas at the TJ-II stellarator. Plasma Physics and Controlled Fusion, 2022, 64, 054009.	0.9	8
4	Microwave Discharge in Gas above Regolith Surface. Plasma Physics Reports, 2022, 48, 408-414.	0.3	0
5	Identification of Zonal Flows and Their Spatial Distribution in the TJ-II Stellarator Plasmas. JETP Letters, 2022, 116, 98-104.	0.4	2
6	Subthreshold Discharge Excited by a Microwave Beam in High-Pressure Gas as a System of a Multitude of Plasma "Microexplosions". Plasma Physics Reports, 2021, 47, 86-91.	0.3	6
7	Subthreshold Discharge in a Microwave Beam as the Basis of a Plasmachemical Reactor for Cleaning Urban Air from Excess Hydrogen Sulfide. Plasma Physics Reports, 2021, 47, 403-406.	0.3	2
8	Stability analysis of TJ-II stellarator NBI driven Alfvén eigenmodes in ECRH and ECCD experiments. Nuclear Fusion, 2021, 61, 066019.	1.6	15
9	Characteristics of a Subthreshold Microwave Discharge in a Wave Beam in Air and the Efficiency of the Plasma-Chemical Reactor. Plasma Physics Reports, 2021, 47, 498-502.	0.3	1
10	Self-Action of a Gaussian Beam of Microwaves in the Subthreshold Field Generated by the Waves in Air. Plasma Physics Reports, 2021, 47, 598-602.	0.3	2
11	Bispectral analysis of broadband turbulence and geodesic acoustic modes in the T-10 tokamak. Journal of Plasma Physics, 2021, 87, .	0.7	6
12	Experimental observation of the geodesic acoustic frequency limit for the NBI-driven Alfvén eigenmodes in TJ-II. Physics of Plasmas, 2021, 28, 072510.	0.7	9
13	Absorption of Microwaves in Different Regimes of Electron Cyclotron Plasma Heating at the L-2M Stellarator. Plasma Physics Reports, 2021, 47, 786-793.	0.3	0
14	Study of electric currents excitation in the plasma of the L-2M stellarator with its electronic cyclotronic creation and heating. Uspehi Prikladnoj Fiziki, 2021, 9, 310-324.	0.3	0
15	Transport transitions at high electron cyclotron resonance heating powers at the L-2M stellarator. Journal of Physics: Conference Series, 2021, 2055, 012005.	0.3	1
16	Quasi-coherent mode evolution in discharges with positive radial electric field at the T-10 tokamak. Journal of Physics: Conference Series, 2021, 2055, 012001.	0.3	2
17	Plasmoid Generation behind the Front of a Subthreshold Discharge in Air under the Self-Action of a Microwave Beam. Plasma Physics Reports, 2021, 47, 1042-1048.	0.3	1
18	Parameters of a Subthreshold Microwave Discharge in Air and Carbon Dioxide as a Function of Microwave Field at Different Gas Pressures. Plasma Physics Reports, 2020, 46, 927-935.	0.3	4

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19	Timeâ€‘Space Evolution of the Parameters of Turbulent Density Fluctuations During Pulsed EC Heating of the Plasma at the L-2M Stellarator. Plasma Physics Reports, 2020, 46, 955-966.	0.3	1
20	Measurements of 2D poloidal plasma profiles and fluctuations in ECRH plasmas using the heavy ion beam probe system in the TJ-II stellarator. Physics of Plasmas, 2020, 27, .	0.7	9
21	Synthesis of Nitrogen Oxides in a Subthreshold Microwave Discharge in Air and in Air Mixtures with Methane. Plasma Physics Reports, 2020, 46, 311-319.	0.3	8
22	Features of a Supersonic Ionization Wave in Argon at Atmospheric Pressure in a Sub-Threshold Microwave Field. Plasma Physics Reports, 2020, 46, 1220-1226.	0.3	4
23	Location of the Front of a Subthreshold Microwave Discharge and Some Specificities of Its Propagation. Plasma Physics Reports, 2019, 45, 965-972.	0.3	6
24	Measurements of Microwave Power Absorbed during ECR Plasma Heating at the L-2M Stellarator. Plasma Physics Reports, 2019, 45, 1059-1065.	0.3	4
25	Density profile reconstruction using HIBP in ECRH plasmas in the TJ-II stellarator. Journal of Instrumentation, 2019, 14, C09033-C09033.	0.5	16
26	Energy Loss and Microturbulence under Multipulse ECR Plasma Heating at the L-2M Stellarator. Plasma Physics Reports, 2019, 45, 732-740.	0.3	1
27	Heavy ion beam probe design and operation on the T-10 tokamak. Fusion Engineering and Design, 2019, 146, 850-853.	1.0	17
28	Evolution of statistical properties of microturbulence during transient process under electron cyclotron resonance heating of the L-2M stellarator plasma. Plasma Physics and Controlled Fusion, 2019, 61, 075006.	0.9	9
29	Discharge in a Subthreshold Microwave Beam as an Effective Means for Mercaptan Decomposition. Plasma Physics Reports, 2019, 45, 523-526.	0.3	7
30	3D structure of density fluctuations in the T-10 tokamak and new approach for current profile estimation. Nuclear Fusion, 2019, 59, 066021.	1.6	9
31	Conceptual design of the heavy ion beam probe diagnostic for the T-15MD tokamak. Journal of Instrumentation, 2019, 14, C11027-C11027.	0.5	6
32	Radial structure of quasi-coherent mode in ohmic plasma of the T-10 tokamak. Journal of Physics: Conference Series, 2019, 1383, 012004.	0.3	6
33	Detection and investigation of chirping AlfvÃ©n eigenmodes with heavy ion beam probe in the TJ-II stellarator. Nuclear Fusion, 2018, 58, 082019.	1.6	8
34	Discharge in a Subthreshold Microwave Beam as an Unusual Type of Ionization Wave. Plasma Physics Reports, 2018, 44, 1146-1153.	0.3	9
35	A Subthreshold High-Pressure Discharge Excited by a Microwave Beam: Physical Basics and Applications. Plasma Physics Reports, 2018, 44, 615-625.	0.3	3
36	Discharge in the Atmosphere in a Gaussian Beam of Subthreshold Millimeter Waves. JETP Letters, 2018, 107, 219-222.	0.4	6

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37	ECRH effect on the electric potential and turbulence in the TJ-II stellarator and T-10 tokamak plasmas. Plasma Physics and Controlled Fusion, 2018, 60, 084008.	0.9	23
38	Heavy ion beam probing diagnostics to study potential and turbulence in toroidal plasmas. Nuclear Fusion, 2017, 57, 072004.	1.6	44
39	Toroidal inhomogeneity of plasma density fluctuations during ECR plasma heating in the L-2M stellarator. Plasma Physics Reports, 2017, 43, 1052-1064.	0.3	1
40	Initiation of dusty structures in chain reactions under the action of gyrotron radiation on a mixture of metal and dielectric powders with an open boundary. JETP Letters, 2017, 106, 262-267.	0.4	7
41	Reaction of turbulence at the edge and in the center of the plasma column to pulsed impurity injection caused by the sputtering of the wall coating in L-2M stellarator. Plasma Physics Reports, 2017, 43, 818-823.	0.3	10
42	Synthesis of micro- and nanostructures with controllable composition in the chain plasma-chemical reactions initiated by the radiation of a powerful gyrotron in the mixtures of metal-dielectric powders. EPJ Web of Conferences, 2017, 149, 02016.	0.1	4
43	Subthreshold self-sustained discharge initiated by a microwave beam in a large volume of high-pressure gas. Journal of Physics: Conference Series, 2017, 907, 012022.	0.3	6
44	Plasma confinement during ECR heating with a volume power density of $3 \text{ mW/m}^3$ at the L-2M stellarator. Journal of Physics: Conference Series, 2017, 907, 012016.	0.3	7
45	ECRH effect on the electric potential in toroidal plasmas (Overview of recent T-10 tokamak and TJ-II) Tj ETQq1 1 0.784314 rgBT /Over 0.1	0.1	3
46	Relief Creation on Molybdenum Plates in Discharges Initiated by Gyrotron Radiation in Metal Dielectric Powder Mixtures. Radiophysics and Quantum Electronics, 2016, 58, 701-709.	0.1	7
47	Reflection and backscattering of microwaves under doubling of the plasma density and displacement of the gyroresonance region during electron cyclotron resonance heating of plasma in the L-2M stellarator. Plasma Physics Reports, 2016, 42, 734-742.	0.3	4
48	Effect of turbulence in a transient process of electron-cyclotron heating in the L-2M stellarator. JETP Letters, 2015, 102, 217-221.	0.4	3
49	Correlation properties of Geodesic Acoustic Modes in the T-10 tokamak. Journal of Physics: Conference Series, 2015, 591, 012003.	0.3	12
50	Influence of Controlled Reflected Power on Gyrotron Performance. Journal of Infrared, Millimeter, and Terahertz Waves, 2015, 36, 1145-1156.	1.2	12
51	Effect of electron-cyclotron resonance plasma heating conditions on the low-frequency modulation of the gyrotron power at the L-2M stellarator. Plasma Physics Reports, 2015, 41, 607-616.	0.3	2
52	Displacement of the electron cyclotron resonance heating region and time evolution of the characteristics of short-wavelength turbulence in the 3D magnetic configuration of the L-2M stellarator. Plasma Physics Reports, 2014, 40, 769-780.	0.3	4
53	Effect of electron-cyclotron resonance heating conditions on the local parameters of short-wavelength plasma turbulence in the L-2M stellarator. Plasma Physics Reports, 2014, 40, 265-275.	0.3	2
54	Microwave Reflection from the Region of Electron Cyclotron Resonance Heating in the L-2M Stellarator. Plasma and Fusion Research, 2014, 9, 3402128-3402128.	0.3	0

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55	A new MIG-3 gyrotron complex for creation and heating of plasma in the L-2M stellarator and the first experimental results. Plasma Physics Reports, 2013, 39, 1088-1095.	0.3	19
56	Effect of microwave reflection from the region of electron cyclotron resonance heating in the L-2M stellarator. Plasma Physics Reports, 2013, 39, 882-887.	0.3	9
57	Application of microwave discharge for the synthesis of TiB <sub>2</sub> and BN nano- and microcrystals in a mixture of Ti-B powders in a nitrogen atmosphere. Plasma Physics Reports, 2013, 39, 843-848.	0.3	11
58	Optimization of operation of a three-electrode gyrotron with the use of a flow-type calorimeter. Review of Scientific Instruments, 2013, 84, 013507.	0.6	12
59	Backscattering of gyrotron radiation and short-wavelength turbulence during electron cyclotron resonance plasma heating in the L-2M stellarator. Plasma Physics Reports, 2013, 39, 444-455.	0.3	34
60	Boron Nitride and Titanium Diboride Synthesis Initiated by Microwave Discharge in Ti-B Powder Mixture in Nitrogen Atmosphere. Journal of Nanoelectronics and Optoelectronics, 2013, 8, 58-66.	0.1	12
61	Testing of the spectroscopic method for location of water microleakages in ITER at the L-2M stellarator. Plasma Physics Reports, 2012, 38, 708-717.	0.3	5
62	Spectra of low-frequency modulation of gyrotron radiation during electron-cyclotron resonance heating of plasma in the L-2M stellarator. Plasma Physics Reports, 2011, 37, 381-390.	0.3	1
63	Recent ECRH Experiments in the L-2 M Stellarator with the Use of a New High-Power Gyrotron. Plasma and Fusion Research, 2011, 6, 2402142-2402142.	0.3	15
64	Study of plasma confinement in the L-2M stellarator during the formation of an edge transport barrier. Plasma Physics Reports, 2010, 36, 551-557.	0.3	1
65	Effect of ECRH regime on characteristics of short-wave turbulence in plasma of the L-2M stellarator. Plasma Physics and Controlled Fusion, 2010, 52, 055008.	0.9	15
66	Stability and variations of plasma parameters in the L-2M stellarator during excitation of the induction current in the regime of ECR plasma heating. Plasma Physics Reports, 2008, 34, 979-990.	0.3	7
67	Studies of short-waveturbulence in ECR heated plasma of the L-2M stellarator. , 2008, , .		0
68	Collective backscattering of gyrotron radiation by small-scale plasma density fluctuations in large helical device. Review of Scientific Instruments, 2008, 79, 10E721.	0.6	3
69	Detection of high k turbulence using two dimensional phase contrast imaging on LHD. Review of Scientific Instruments, 2008, 79, 10E724.	0.6	6
70	Plasma energy balance in the L-2M stellarator. Plasma Physics Reports, 2007, 33, 805-815.	0.3	15
71	Statistical analysis and modelling of turbulent fluxes in the plasma of the L-2M stellarator and the FT-2 tokamak. Plasma Physics and Controlled Fusion, 2006, 48, A393-A399.	0.9	8
72	New possibilities for the mathematical modeling of turbulent transport processes in plasma. Plasma Physics Reports, 2005, 31, 57-74.	0.3	6

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73	Effect of vacuum chamber boronization on the plasma parameters in the L-2M stellarator. Plasma Physics Reports, 2005, 31, 452-461.	0.3	27
74	The use of Doppler reflectometry in the L-2M stellarator. Plasma Physics Reports, 2005, 31, 554-561.	0.3	13
75	Studies of fluctuations in the high-temperature plasma of modern stellarators by the microwave scattering technique. Plasma Physics Reports, 2003, 29, 363-379.	0.3	6
76	Second harmonic of gyrotron radiation: New potentialities of plasma diagnostics. Plasma Physics Reports, 2003, 29, 1019-1027.	0.3	4
77	Influence of the plasma density and heating power on the intensity of electron cyclotron emission in the L-2M stellarator. Plasma Physics Reports, 2003, 29, 1028-1033.	0.3	10
78	Low-frequency structural plasma turbulence in the L-2M stellarator. JETP Letters, 2003, 78, 502-510.	0.4	10
79	Resonant locking of gyrotron oscillations by wave reflection from fluctuating plasma. , 2003, , .		0
80	The L-5 stellarator: A compact torsatron with a controlled structure of the magnetic configuration. Plasma Devices and Operations, 2003, 11, 161-184.	0.6	1
81	MEASUREMENTS OF THE MICROWAVE POWER ABSORBED BY A PLASMA DURING SECOND HARMONIC ECR HEATING IN THE L-2M STELLARATOR. , 2003, , .		0
82	CHARACTERISTIC FEATURES OF THE BEHAVIOR OF ECRH-PRODUCED MODERATE- AND LOW-DENSITY PLASMAS IN THE L-2M STELLARATOR. , 2003, , .		1
83	Measurements of the microwave power absorbed by a plasma during second harmonic ECR heating in the L-2M stellarator. Plasma Physics Reports, 2002, 28, 7-11.	0.3	3
84	New approach to the probabilistic-statistical analysis of turbulent transport processes in plasma. Plasma Physics Reports, 2002, 28, 111-124.	0.3	7
85	Title is missing!. Journal of Mathematical Sciences, 2002, 111, 3846-3850.	0.1	1
86	A New Approach to the Probability-Statistical Analysis of Turbulent Transport Processes in Plasma. Journal of Mathematical Sciences, 2002, 112, 4205-4210.	0.1	1
87	Title is missing!. Journal of Mathematical Sciences, 2001, 106, 2691-2703.	0.1	8
88	Observation of nonlinear coupling between drift and ion-acoustic oscillations in low-frequency plasma turbulence. Plasma Physics Reports, 2001, 27, 56-61.	0.3	3
89	Turbulent transport processes in a plasma as a diffusion process with random time. JETP Letters, 2001, 73, 126-130.	0.4	5
90	Response of a gyrotron to small-amplitude low-frequency-modulated microwaves reflected from a plasma. Technical Physics, 2001, 46, 595-600.	0.2	13

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91	Observation of the coherence between the plasma density fluctuations in the core and at the edge of the plasma column in the L-2M stellarator. JETP Letters, 2000, 72, 174-177.	0.4	2
92	Effect of the transverse magnetic field on turbulence and parameters of a plasma column in the L-2M stellarator. Plasma Physics Reports, 2000, 26, 1-9.	0.3	11
93	Effect of unstable MHD modes on the confinement of a stellarator plasma. JETP Letters, 1999, 69, 441-447.	0.4	4
94	Structural ion-sound plasma turbulence as a self-similar random process. JETP Letters, 1999, 70, 201-207.	0.4	4
95	Observation of extended poloidal structures in the turbulent edge plasma of the L-2M stellarator. JETP Letters, 1998, 67, 662-667.	0.4	2
96	New experimental data on the possibility of influencing fluctuational particle fluxes in a L-2M stellarator edge plasma. JETP Letters, 1998, 68, 585-591.	0.4	0
97	Statistical properties and radial structure of plasma turbulence in the boundary region of the L2-M stellarator. Plasma Physics and Controlled Fusion, 1998, 40, 1241-1250.	0.9	22
98	High power density electron cyclotron experiments in the L2M stellarator. Nuclear Fusion, 1997, 37, 233-239.	1.6	34
99	Calibration of the heavy ion beam probe parallel plate analyzer using the gas target and reference beam. Review of Scientific Instruments, 1997, 68, 308-311.	0.6	7
100	Heavy ion beam probe diagnostics on TJ-1 tokamak and the measurements of the plasma potential and density profiles. Review of Scientific Instruments, 1997, 68, 312-315.	0.6	9
101	HIBP diagnostics on T-10. Review of Scientific Instruments, 1995, 66, 317-319.	0.6	33
102	ECR Heating in L-2M Stellarator. Fusion Science and Technology, 1995, 27, 270-272.	0.6	2
103	Space and time evolution of plasma potential in T-10 under variation of main gas influx. IEEE Transactions on Plasma Science, 1994, 22, 363-368.	0.6	13
104	Resonant locking of gyrotron oscillations by wave reflection from fluctuating plasma. , 0, , .		0